

Remarks

Applicants respectfully request reconsideration of the present application in view of the above amendments and following remarks. No claims have been amended, added or cancelled. Therefore, claims 11-29 remain pending in the present application.

Claims 11-29 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2003/0235723 to Simpkins et al. ("the Simpkins reference") in view of U.S. Patent No. 6,626,650 to Kenchington et al. ("the Kenchington reference"). Applicants respectfully traverse this rejection.

In maintaining the rejection of claim 11, the Examiner stated that the Simpkins reference teaches all of the limitations in claim 11 except the first and second valve means. *See Final Office Action*, pg. 2. In order to teach the first and second valve means, the Examiner stated that it would have been obvious to one skilled in the art to combine the teachings of the Kenchington reference with the Simpkins reference because the "first and second valve means allow gas to be expelled only when a pressure differential is established, which would prevent a portion of gas from leaking in an opposite direction from the flow of gas." *Id.* at pg. 3.

All of the arguments set forth in the Response to Office Action dated May 9, 2006 are hereby incorporated by reference and are believed to place the present patent application in proper condition for allowance. Applicants also hereby submit the following argument that provide further support for the allowance of the pending claims.

In order to establish a prima facie case of obviousness, the Examiner is required to provide references that must be either in the field of the inventors' endeavor or reasonably pertinent to the specific problem with which the inventor was involved. See *In re Deminski*, 796 F.2d 436, 442, 230 USPQ 313, 315 (Fed. Cir. 1986). "A reference is reasonably pertinent if . . . it is one which, because of the matter with which it deals, logically would have commended itself to the inventor's attention in considering his problem." *In re Clay*, 966 F.2d 656, 23 USPQ.2d 1058, 1060-61 (Fed. Cir. 1992). If a reference disclosure has the same purpose as the claimed invention, the reference relates to the same problem" See *id.* "[I]f it is directed to a different purpose, the inventor would accordingly have had less motivation or occasion to consider it." See *id.*

Applicants submit that the Kenchington reference is non-analogous art and that it is improper to combine the teachings of the Kenchington reference with the Simpkins reference. First, the cyclically operated fluid displacement machine relates to either a reciprocating internal combustion engine (FIG. 1) or an electrically operated engine (i.e., a compressor) (FIG. 4), not a fuel cell assembly. While the Kenchington reference states that the cyclically operated fluid displacement machine "would fill the gap between current technology and fuel cell technology," there has been no evidence to suggest that the valves (16, 116) could instead be used in a fuel cell assembly, such as the one shown in the Simpkins reference. *Kenchington*, Col. 6, lines 4-5. In fact, the cyclically operated fluid displacement machine disclosed in the Kenchington reference would be used in lieu of fuel cells and not used in conjunction with a fuel cell system. See *Kenchington*, Col. 6, lines 4-9 (citing

the complexity and costs of fuel cell systems). As such, the Kenchington reference actually teaches away from applying the technology disclosed therein with fuel cells. See *In re Rudko*, Civ. App. No. 98-1505 (Fed. Cir. May 14, 1999) (unpublished) (stating that an invention is not obvious where one prior art reference teaches away from the combination with a second prior art reference). As such, the teachings in the Kenchington reference are clearly not related to the same field of endeavor as the present invention (i.e., a fuel cell assembly).

Second, the operational issue addressed by the valves disclosed in the Kenchington reference are not reasonably pertinent to the specific problem with which the Applicants of the present patent application were involved. In the present invention, the Applicants were confronted with a need for, among other things, maintaining a compressive load to a fuel cell assembly within a predetermined pressure range at ambient and elevated temperatures. See *Specification*, pg. 3, lines 25-29. Therefore, the first and second valves in the present invention operate to maintain a relatively constant volume and pressure range within the gas spring while the temperature of the fuel cell assembly changes during startup, operation and shut down modes as discussed in the present patent application. See *Specification*, pg. 5, line 14 through pg. 7, line 10.

In contrast to the present invention, the valves disclosed in the Kenchington reference do not operate to maintain a compressive load within a predetermined pressure range at ambient and elevated temperatures. With respect to the embodiment shown in FIG. 1 of the Kenchington reference, the valve (16) operates to maintain a constant pressure within the chamber (14) as the volume of chamber

(14) increases (i.e., when a reciprocating member (12) moves to the right), and as the volume of chamber (14) decreases (i.e., when the reciprocating member (12) moves to the left) upon a combustion event that occurs within chamber (15).

Likewise, the second embodiment shown in FIG. 4 of the Kenchington reference, the valve (106) operates to maintain a constant pressure within chamber (104) as the volume of chamber (104) increases (i.e., when a reciprocating member (110) moves to the right). With continuing reference to FIG. 4, as the reciprocating member (110) moves to the left so that the volume of chamber (104) decreases, valves (115, 116) operate to regulate the pressure within chambers (104, 105). As such, the valves disclosed in each of the embodiments in the Kenchington reference relate to the problem of maintaining a constant pressure within a given chamber upon a change in volume, and do not relate to the problem of maintaining a pressure value within a gas spring within a predetermined range given a change in temperature. The valves included in the Kenchington reference serve an entirely different purpose compared to the valves set forth in the present invention, and as a result, there would have been no motivation to combine the teachings of the Kenchington reference with the Simpkins reference.

For at least the reasons set forth above, Applicants submit that a prima facie case of obviousness has not been established because the Examiner is attempting to combine a non-analogous reference, the Kenchington reference, with the Simpkins reference. Applicants request that the rejection of claim 11 be withdrawn. As claims 12 and 14-20 depend either directly or indirectly from claim 11, Applicants

request that the rejection of claims 12 and 14-20 be withdrawn for at least the same reasons that were set forth with respect to claim 11.

For at least the same reasons set forth with respect to claim 11, Applicants submit that a prima facie case of obviousness has not been established based on the combination of the Kenchington reference with the fuel cell stack disclosed in the Simpkins reference with respect to claims 13 and 21. As such, Applicants request that the rejection of claims 13 and 21 be withdrawn. As claims 22-29 depend from claim 21, these claims are also not taught or suggested based on the combination of the Simpkins and Kenchington references for at least the same reasons set forth with respect to claim 21. Thus, Applicants request that the rejection of claims 22-29 be withdrawn as well.

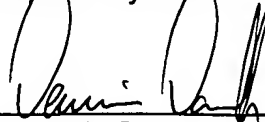
Conclusion

In light of the foregoing, Applicants submit that claims 11-29 are in condition for allowance and such allowance is respectfully requested. Should the Examiner feel that any unresolved issues remain in this case, the undersigned may be contacted at the telephone number listed below to arrange for an issue resolving conference.

Applicants do not believe that any fee is due at this time. However, the Commissioner is hereby authorized to charge any fee that may have been overlooked to Deposit Account No. 10-0223.

Dated: 9/26/06

Respectfully submitted,



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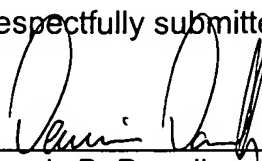
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